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California Regional Water Quality Control Board San Diego Region

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May 5, 2009

In Reply Refer to:
T0607393244:spease

**Certified Mail – Return Receipt Requested
7008 1140 0002 4285 3674**

Mr. Joel Kloth
State of California Department of Transportation
District 11
Environmental Engineering, MS-242
4050 Taylor Street
San Diego, CA 92110

Dear Mr. Kloth:

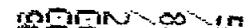
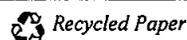
**SUBJECT: INVESTIGATIVE ORDER NO. R9-2009-0053
CALTRANS RIGHT-OF-WAY, FORMERLY SANTA YSABEL INN
SOUTHWEST INTERSECTION OF HIGHWAYS 78 AND 79
SANTA YSABEL, CA**

Enclosed is Investigative Order No. R9-2009-0053, issued by the California Regional Water Quality Control Board, San Diego Region (Regional Board) pursuant to California Water Code (Water Code) section 13267. This Order directs you submit technical reports to the Regional Board for Soil and Groundwater Investigation, Quarterly Groundwater Monitoring, and a Site Conceptual Model.

Any person failing or refusing to furnish information required under the authority of Water Code section 13267 or falsifying information submitted to the Regional Board pursuant to such a directive is guilty of a misdemeanor and may be subject to civil liability. Under Water Code section 13268, a civil liability may be imposed administratively by the Regional Board in an amount of up to \$1,000 per day of violation (i.e., for each day of delay in submitting all information requested, or for each day that false information remains uncorrected).

The heading portion of this letter includes a Regional Board code number noted after "In reply refer to." In order to assist us in the processing of your correspondence please include this code number in the heading or subject line portion of all correspondence and reports to the Regional Board pertaining to this matter.

California Environmental Protection Agency



Mr. Joel Kloth, Caltrans
Santa Ysabel, Hwys. 78 & 79
Investigative Order R9-2009-0053

- 2 -

May 5, 2009

If you have any questions please contact Sue Pease of my staff at (858) 637-5596 or by email at spease@waterboards.ca.gov.

Respectfully,



MICHAEL P. McCANN
Assistant Executive Officer
San Diego Regional Water Quality Control Board

Enclosure: Investigative Order R9-2009-0053

MPM:jc:sjp

c:\CalTrans\InvestOrdR9-2009-0053.May09.final.doc

cc: Ronald J. Kofron, Geocon Consultants, Inc., 6970 Flanders Drive, San Diego,
CA 92121-2974

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

INVESTIGATIVE ORDER NO. R9-2009-0053

**AN ORDER DIRECTING CALIFORNIA DEPARTMENT OF TRANSPORTATION
TO SUBMIT TECHNICAL REPORTS PERTAINING TO A
WATER QUALITY INVESTIGATION
AT THE SITE OF**

**CALTRANS HIGHWAY 78 RIGHT-OF-WAY, FORMERLY SANTA YSABEL INN PROPERTY
LOCATED AT THE SOUTHWEST INTERSECTION OF HIGHWAYS 78 AND 79
SANTA YSABEL, CALIFORNIA**

The California Regional Water Quality Control Board, San Diego Region (herein after Regional Board) Finds:

1. **Legal and Regulatory Authority:** This Order is based on (1) section 13267 of the California Water Code (Water Code); (2) applicable state and federal regulations; (3) all applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board (State Board) and the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) adopted by the Regional Board including beneficial uses, water quality objectives, and implementation plans; (4) State Board policies and regulations, including State Board Resolution No. 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*), Resolution No. 88-63 (*Sources of Drinking Water*), and Resolution No. 92-49 (*Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304*); California Code of Regulations (CCR) Title 23, Chapter 16, Article 11; CCR Title 23, section 3890 et. seq., and (5) relevant standards, criteria, and advisories adopted by other state and federal agencies.
2. The former Santa Ysabel Inn was located at the southwest intersection of Highways 78 and 79 in Santa Ysabel, California. The Assessors Parcel Number for this property is 248-046-03 (site). A Texaco gasoline service station was formerly operated at this location.
3. The California Department of Transportation (CalTrans), hereinafter Discharger, became the owner of part of the property on which the former Texaco station was located when CalTrans widened Highway 78 and extended the right-of-way associated with the highway. The area where the underground storage tank (UST) system was located is now within the CalTrans right-of-way.

4. Santa Ysabel is located in the Santa Ysabel Hydrologic Area. Groundwater in the Santa Ysabel Hydrologic Area has existing beneficial uses for Municipal and Domestic Water Supply and for Agricultural Supply.
5. Santa Ysabel is a groundwater dependant community. There are eight private domestic wells located within 500 feet of the site, including one public supply well (State Well Number: 3701893-001GEN).
6. The drinking water supply in the Santa Ysabel area is vulnerable to gasoline and benzene pollution because a pathway exists for gasoline contamination in soils to migrate into the underlying fractured rock aquifer and into domestic and public groundwater wells. As shown by studies conducted for the cleanup of the neighboring Moretti property (former Santa Ysabel Chevron gasoline station), groundwater in the fractured rock aquifer is hydrologically connected to groundwater in the overlying unconsolidated soils. The interface between the soils and underlying fractured rock occurs at a relatively shallow depth of about 30 feet at the site. Because of this connection, and the shallow depth at which the fractured aquifer occurs, gasoline contaminants can migrate rapidly from contaminated soils into the fractured rock aquifer, then through the fractures to pumping wells.
7. In 1977, private well owners reported gasoline odors in three domestic groundwater wells in the Santa Ysabel area to the County of San Diego Department of Environmental Health (DEH). Beginning in 1984, in response to the groundwater pollution in Santa Ysabel, the DEH began prohibiting the construction of new domestic/municipal wells within a 2,000-foot radius of the contaminated domestic wells in Santa Ysabel.
8. A 1987 report prepared for the California Department of Health Services by Ecology and Environment, Inc. identified the site as a potential source of the noted groundwater pollution in Santa Ysabel.
9. In 2002, the UST system was removed from the site. Soil samples collected from beneath the former fuel dispenser island had total petroleum hydrocarbon (as oil) concentrations of up to 381 milligrams per kilogram. Other soil samples taken at the site as part of a 2004 investigation had total petroleum hydrocarbons (as gasoline) concentrations of up to 120 milligrams per kilogram. The soil sample results indicate that petroleum hydrocarbon wastes leaked from the UST system that had been removed from the site.
10. On August 4, 2004, a report titled *Additional Site Assessment* was submitted by CalTrans. The report documents gasoline and gasoline components in a groundwater monitoring well located at the site, and a fingerprinting analysis that suggests three different releases of hydrocarbons at the intersection of Highways 78 and 79. The report concluded that the lateral extent of dissolved phase hydrocarbons from the former Texaco has not been completely assessed. The

recommendations from this report include "installation of at least one additional groundwater monitoring well to the west of Sherrill Orchard store." The three groundwater monitoring wells installed for the site assessment have not been monitored by CalTrans since 2004.

11. The owner of a contaminated property, even if they did not own or operate the UST system or own the property at the time that the leak occurred, can be held responsible for cleaning up and abating the effects of a discharge of waste from soil on their property because the continued migration of waste from the soil into groundwater constitutes a discharge (State Water Resources Control Board Water Quality Order No. 86-2 in the Matter of the Petition of the Zoecon Corporation). Due to the presence of petroleum hydrocarbon waste in the soil and groundwater pollution at the site, CalTrans is suspected of discharging wastes into waters of the State.
12. California Code of Regulations (CCR) Title 23, Division 3, Chapter 16, Article 11 applies to any owner of a property where an unauthorized release of a hazardous substance from an underground storage tank has occurred; and owners and operators of an underground storage tank whenever there is any reportable unauthorized release. Applicable requirements of Chapter 16 including the following:
 - a. Section 2652 (d) requires submission of reports to the local agency or Regional Water Quality Control Board every three months until investigation and cleanup are complete.
 - b. Section 2654 requires that in the event of an undocumented release, an initial site characterization is performed, providing data including the nature and estimated quantity of the release; water quality, use and approximate locations of wells potentially affected by the release.
 - c. Section 2722 (c) requires the responsible party to submit a workplan for proposed activities under the Preliminary Site Assessment Phase, if directed by the regulatory agency.
 - d. Section 2723 specifies that the Preliminary Site Assessment Phase includes the initial site characterization specified in section 2654 and reporting must be conducted according to section 2562.
13. The Basin Plan includes criteria for determining appropriate soil and groundwater cleanup levels for protection of both human health and the environment. The cleanup levels are based upon beneficial uses and associated water quality objectives identified within the Basin Plan.
14. Based upon the data presented in the *Additional Site Assessment Report*, further action is necessary to assess and address and characterize the impacts of the

illicit discharge of petroleum hydrocarbon wastes to waters of the State. The Discharger has not provided a report of complete Soil and Groundwater Investigation or a Site Conceptual Model. Consequently, the information in the record for this case is insufficient to determine the nature and quantity of the release, determine if the release poses a threat to water quality, human health, or the environment, or determine if corrective actions are needed.

15. Water Code section 13267 provides that the Regional Board can require any person who has discharged, discharges, proposes to discharge or is suspected of discharging waste to investigate, monitor, and report information. The burden, including the costs of preparing the reports, must bear a reasonable relationship to the need for and the benefits to be obtained from the reports. The findings of this Order provide the Discharger with a written explanation with regard to the need for the reports and identify the evidence that supports the requirement to submit the reports. The costs of these reports are estimated in the Underground Storage Tank Cleanup Fund Cost Guidelines as follows. Costs for a Soil and Groundwater Investigation Workplan range from \$1,400 to \$2,755, for a Soil and Groundwater Investigation Report range from \$2,275 to \$5,620, for a Site Conceptual Model range from \$720 to \$950, and for a Quarterly Groundwater Monitoring Report range from \$1,790 to \$2120. The associated costs bear a reasonable relationship to the need for the actions, specifically the protection of water quality and beneficial uses¹.
16. This enforcement action is being taken for the protection of the environment and is exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) in accordance with section 15308, Chapter 3, Title 14 of the CCR. The issuance of this Order is also an enforcement action taken by a regulatory agency and is exempt from the provisions of CEQA pursuant to section 15321(a) (2), Chapter 3, Title 14 of the CCR. This action is also exempt from the provisions of CEQA in accordance with section 15061(b) (3) of Chapter 3, Title 14 of the CCR because it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.
17. Discharger reliance on qualified professionals promotes proper planning, implementation, and long-term cost-effectiveness of investigation, and cleanup and abatement activities. Professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. California Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of registered professionals.

¹ For cost information, refer to Underground Storage Tank Cleanup Fund Cost Guidelines, California State Water Resources Control, October 2001 http://www.waterboards.ca.gov/water_issues/programs/ustcf/technicalformsinfo.shtml

concentration plots and distance versus concentration plots that also show groundwater elevations must be prepared for constituents of concern for appropriate wells.

- d. Site Plot Plan: Provide a site plot plan which:
- i. clearly illustrates the locations of monitoring wells, former/current underground storage tank systems (and product piping) and buildings located on the property and immediately adjacent to the property lines of the site, and
 - ii. identifies the most recent concentrations of total petroleum hydrocarbons and volatile aromatic hydrocarbons (e.g. benzene, toluene, ethylbenzene, total xylenes, MTBE, TBA and other fuel oxygenates).
- e. Technical Interpretation: The report must provide technical interpretations of the groundwater data, and describe any significant increases in pollutant concentrations since the last report, any measures proposed to address the increases, any changes to the site conceptual model, any conclusions and recommendations for future action with each report.
- f. Analytical Methods: The report must describe analytical methods used, detection limits obtained for each reported constituent, and a summary of Quality Assurance/Quality Control data.
- g. Sample Collection Information: The report must indicate sample collection protocol(s), describe how investigation derived wastes are managed at the site, and include documentation of proper disposal of contaminated well purge water and/or soil cuttings removed from the site.
- h. Historical Groundwater Data: Historical groundwater sampling results must be listed in tabular form and included in the fourth quarterly report each year.
- i. Groundwater Extraction: If applicable, the report must include groundwater extraction results in tabular form, for each extraction well and for the site as a whole, expressed in gallons per minute and total groundwater volume for the quarter. The report must also include contaminant removal results, from groundwater extraction wells and from other cleanup and abatement systems (e.g. soil vapor extraction), expressed in units of chemical mass per day and mass for the quarter. Historical total annual mass removal results must be tabulated in the fourth quarterly report each year.
- j. Status Report: The quarterly report must describe relevant work completed during the reporting period (e.g. site investigation, interim remedial measures) and work planned for the following quarter.

2. **Site Conceptual Model:** On or before **September 30, 2009**, the Discharger shall submit a site conceptual model (SCM) that provides a written or pictorial representation of the release scenario and the likely distribution of waste at the site, as well as potential pathways and receptors. The SCM must identify and describe the types of wastes present including their distribution in space and time, and how the wastes are changing in space and time. In addition the SCM must identify the potential, current and future receptors in the area; link potential sources to potential receptors through transport of wastes in the air, soil and water; and identify the fate and transport characteristics of the site. It should describe or show the physical characteristics and properties of the subsurface and identify the environmental issues that need to be investigated (and those issues that do not need to be addressed). The SCM must include data interpretations, a discussion of the level of uncertainty of conclusions, outline data gaps remaining in the conceptual model, and describe the additional work needed to fill identified data gaps and make recommendations for the next phase of the cleanup.

The SCM must be refined and updated as site characterization data becomes available. Updates to the SCM should be included in all future technical and quarterly monitoring reports submitted.

3. **Soil and Groundwater Investigation Report:** Prepare and submit a complete Soil and Groundwater Investigation Report, within **sixty (60 days)** of concluding a soil and groundwater investigation. The report shall contain the following information:
 - a. **Source Characterization:** The report shall contain the results of an investigation of all potential sources of waste constituent discharges to soil and groundwater including, but not limited to, historical records of operations, site reconnaissance, and previous sampling studies. The information in the technical report must provide an adequate basis for determining subsequent cleanup and abatement actions, if needed. All sources of waste constituent releases shall be located on a site map at a scale of 1 inch = 200 feet or larger, with an appropriate contour interval to depict site topography.
 - b. **Geologic Characterization:** The report shall contain an accurate characterization of the subsurface geology, the hydrogeologic characteristics, and all preferential pathways that may affect groundwater flow and contaminant migration.
 - c. **Groundwater Flow Characterization:** The report shall describe the rate(s) and direction(s) of local groundwater flow, in both the horizontal and vertical dimension for all water bearing units potentially affected by the waste constituent(s) from the Site.

- d. Extent of Waste Constituent Characterization: The report must adequately characterize the extent (both laterally and vertically) of each waste constituent in soil and groundwater to the background² concentration for that waste constituent, and include any pollution that has migrated off-property.
 - e. Groundwater Monitoring Wells: The report shall describe the location of existing monitoring wells, and the proposed location of additional monitoring wells, needed to characterize the types of waste constituents present, the concentrations of waste constituents, and their lateral and vertical extent in groundwater. Selected methods for purging and sampling monitoring wells must be capable of providing representative samples of groundwater for detecting all of the waste constituents.
 - f. Field Methodologies: The report shall describe the field methodologies used for drilling, soil sampling, groundwater sampling, well and piezometer construction, geophysical surveys, and other activities.
 - g. Chemical Analyses: The report shall describe the laboratory analytical methods and protocols used for each environmental medium including soil, soil vapor, and water. The suite of chemical analyses, methods and protocols must be adequate to quantitatively identify and characterize the full range of site-specific waste constituents.
 - h. Sample Locations and Number: The locations, type, and number of samples shall be identified and shown on a site map and cross sections. The number of samples and suite of chemical analyses must be sufficient to identify the nature of waste constituent(s) and their sources, to define the distribution of waste constituents in the subsurface, to provide data for evaluation of fate and transport of pollutants, risk assessment, remedy selection, and remedial design. In addition samples shall be collected to evaluate physical properties of soils and aquifer materials. All sample data shall be presented in tabular format including the sample result, sample medium, location, depth, sampling method, analyses and rationale for the method.
3. **Paper Copy and Electronic Data Submittals:** All information submitted to the Regional Board in compliance with this Order must be submitted in both paper copy and electronic formats. The electronic format is to be submitted electronically via the Internet into the GeoTracker database. Deadlines for paper copy submittals also extend to electronic copy submittals. As of January 1, 2005, the applicable electronic reporting requirements include well location data, survey data, sampling data, groundwater elevation data, boring logs, well screen information, site maps, and copies of reports in PDF format.

² "Background" means the concentrations or measures of constituents or indicator parameters in water or soil that have not been affected by waste constituents from the site.

To comply with section 3893, Title 23, CCR; your update to the Geotracker database must include the following minimum information:

- a. Data generated after the effective date of the regulations by chemical analysis of soil, vapor, or water samples (including surface water, groundwater and influent/effluent water samples from remediation systems), shall be submitted in Electronic Data File (EDF) format.
- b. The latitude and longitude of any permanent monitoring well for which data is reported in EDF format, accurate to within 1 meter and referenced to a minimum of two reference points from the California Spatial Reference System (CSRS-H), if available.
- c. The surveyed elevation relative to a geodetic datum of any permanent monitoring well.
- d. The elevation of groundwater in any permanent monitoring well relative to the surveyed elevation.
- e. A site map or maps showing the location of all sampling points referred to in the report.
- f. The depth to the screened interval and the length of screened interval for any permanent monitoring well.
- g. Boring logs, in PDF format.
- h. A complete copy of the report, in PDF format, which includes the signed transmittal letter and professional certification.

The GeoTracker website address is <http://www.geotracker.waterboards.ca.gov>.

PROVISIONS

1. Contractor/Consultant Qualifications: All technical documents must be signed by and stamped with the seal of a California licensed professional geologist, or a California licensed civil engineer.
2. Lab Qualifications: All samples must be analyzed by California State-certified laboratories using approved EPA methods for the type of analysis to be performed. All laboratories must maintain quality assurance/quality control (QA/QC) records for Regional Board review.
3. Reporting of Changed Owner or Operator: The Discharger must notify the Regional Board of any changes in site occupancy or ownership associated with the property described in this Order.

- f. A request for a hearing does not extend the 30-day period to file a petition with the State Board (see below). However, we suggest that you ask the State Board to hold the petition in abeyance while your request for a hearing is pending. (Refer to CCR Title 23 section 2050.5(d)) Additional information regarding the State Water Resources Control Board (State Board) petition process is provided below.

4. **Requesting Administrative Review by the State Board:** Any person affected by this action of the Regional Board may petition the State Board to review the action in accordance with section 13320 of the Water Code and CCR Title 23 section 2050. The petition must be received by the State Board (Office of Chief Counsel, P.O. Box 100, Sacramento, California 95812) within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.

Ordered By:



MICHAEL P. McCANN
Assistant Executive Officer
May 5, 2009

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Joel Kloth
 CalTrans District 11
 Env. Engineering rms
 4050 Taylor St
 San Diego CA 92110

2. Article Number
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